



PTO/SB/088 (10-01)
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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Substitute for form 1449B/PTO		Complete if known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/657,824
		Filing Date	09/09/2003
		First Named Inventor	LEE
		Group Art Unit	2821
		Examiner Name	
Sheet 1 of 2	Attorney Docket Number	CRS110US	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
H✓		Filippov, V. et al., "The First Dual-Depth Dual-Frequency Choke Ring," Proceedings of ION, Sept. 1998.	
B✓		Gao, S. et al, "A Broad-Band Dual-Polarized Microstrip Patch Antenna With Aperture Coupling," IEEE Transactions on Antenna Propagation, Vol. 51, No. 4, April 2003, pp. 898-900.	
H✓		Klevenz, F. et al, "Aperture-coupled stacked microstrip antenna with dual polarization and low back-radiation for X-band SAR applications," Radio and Wireless Conference, 2000. RAWCON 2000, Sept. 2000, pp. 179 - 182.	
H✓		Lo, Y. T. et al., "Theory and Experiment on Microstrip Antennas," IEEE Transactions on Antennas and Propagation, Vol. 27, No. 2, March 1979, pp. 137-145.	
H✓		Lee Y. et al., "Multiband L5 Capable GPS Antenna," Proceedings of ION, Sept. 2003.	
H✓		Pozar, M. et al., "A Dual-Band Circularly Polarized Aperture-Coupled Stacked Microstrip Antenna for Global Positioning Satellite," IEEE Transactions on Antennas and Propagation, Vol. 45, No. 11, Nov. 1997, pp. 1618-1625.	

Examiner Signature		Date Considered	12/12/04
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Sheet	2	of	2	Attorney Docket Number	CRSI10US

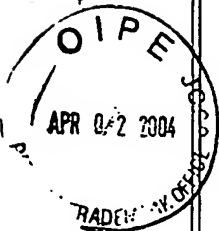
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Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
H✓		Targonski, S. D. et al., "An aperture coupled stacked patch antenna with 50% bandwidth," Antennas and Propagation Society International Symposium, 1996. AP-S. Digest, July 1996, pp. 18 - 21.	
H✓		Targonski, S. D. et al., "Design of Wide-Band Aperture-Stacked Patch Microstrip Antennas," IEEE Transactions on Antennas and Propagation, Vol., 46, No. 9, Sept. 1998, pp. 1245-1251.	
PR✓		Targonski, S. D., et al., "Wideband aperture coupled microstrip patch array with backlobe reduction," Electronics Letters, Vol. 33, No. 24, Nov. 1997, pp. 2005-2006.	
H✓		Wang, J. et al., "Multifunctional Aperture Coupled Stacked Antenna," Antennas and Propagation Society International Symposium, 1991. AP-S. Digest, 24-28 June 1991, pp. 727 - 730.	

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Attorney Docket: CRSI10US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)
YOONJAE LEE et al.)
Serial No. 10/657,824) Group Art Unit: 2821
Filed: September 9, 2003) Examiner:
For: MULTIFREQUENCY ANTENNA WITH)
REDUCED REAR RADIATION AND)
RECEPTION)

Honorable Commissioner of Patents
P.O. Box 1450
Arlington, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT IV

Applicants request that the following art be considered in
the examination of the above-captioned application:

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date</u>
H✓ 6,445,354	Kunysz	Sep., 2002
H✓ 6,452,560	Kunysz	Sep., 2002
H✓ 6,480,170	Langley, et al.	Nov., 2002
H✓ 6,492,947	Anderson	Dec., 2002
H✓ 6,549,167	Yoon	Apr., 2003
H✓ 6,606,061	Wong, et al.	Aug., 2003

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11/12/04

A copy of each of the above references is enclosed, along with an Information Disclosure Citation form.

Applicant requests that the art be considered in the examination of the U.S. case.

Respectfully submitted,

DAVID NEWMAN CHARTERED

By: 

Date: March 30, 2004

David B. Newman, Jr.
Registration No. 30,966

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/657,824
		Filing Date	SEPT 9 2003
		First Named Inventor	YOUNGJAE LEE
		Art Unit	2821
		Examiner Name	
Sheet 1 of 1	Attorney Docket Number	CRSIOIUS	

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
HJ		US- 6445354	09 2002	KUNYSZ	
		US- 6452560	09 2002	KUNYSZ	
		US- 6480170	11 2002	LANGLEY et al.	
		US- 6492947	12 2002	ANDERSON	
		US- 6549167	04 2003	YOUNG	
		US- 6606061	08 2003	WONG et al.	
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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Attorney Docket: CRSI10US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)

YOONJAE LEE et al.)

Serial No. 10/657,824)

Group Art Unit: 2821

Filed: September 9, 2003)

Examiner:

For: MULTIFREQUENCY ANTENNA WITH
REDUCED REAR RADIATION AND
RECEPTION)

Honorable Commissioner of Patents
P.O. Box 1450
Arlington, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT II

Applicants request that the following art be considered in
the examination of the above-captioned application:

<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date</u>
4,827,271	Berneking, et al.	May, 1989
4,847,625	Dietrich, et al.	Jul., 1989
5,025,264	Stafford	Jun., 1991
5,241,321	Tsao	Aug., 1993
5,448,250	Day	Sep., 1995
5,635,942	Kushihi, et al.	Jun., 1997
5,861,848	Iwasaki	Jan., 1999

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A copy of each of the above references is enclosed, along with an Information Disclosure Citation form.

Applicant requests that the art be considered in the examination of the U.S. case.

Respectfully submitted,

DAVID NEWMAN CHARTERED

By: 

Date: March 30, 2004

David B. Newman, Jr.
Registration No. 30,966

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		Filing Date	SEPT 9, 2003
		First Named Inventor	YOUNG JAE LEE
		Art Unit	2821
		Examiner Name	
Sheet 1 of 1	Attorney Docket Number	CRSJ 0105	

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number ² Number - Kind Code ³ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
HU ↑ ↓ HU		US- 4827271	05-1989	BERNEKING et al	
		US- 4847625	07-1989	DIETRICH et al	
		US- 5025264	06-1991	STAFFORD	
		US- 5241321	08-1993	TSAO	
		US- 5448250	09-1995	DAY	
		US- 5635942	06-1997	KUSHIHI et al	
		US- 5635848	01-1999	IWASAKI	
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
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INFORMATION DISCLOSURE STATEMENT III

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<u>U.S. Patent No.</u>	<u>Inventor</u>	<u>Issue Date</u>
5,945,950	Elbadawy	Aug., 1999
6,054,953	Lindmark	Apr., 2000
6,100,855	Vinson, et al.	Aug., 2000
6,208,309	Chandler, et al.	Mar., 2001
6,278,407	Ashjaee, at al.	Aug., 2001
6,326,923	Shigihara	Dec., 2001

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Respectfully submitted,

DAVID NEWMAN CHARTERED

By: 

Date: March 30, 2004

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Registration No. 30,966

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H K A		US- 5945 950	08 1999	ELBADAWY	
		US- 6054 953	04 2000	LINDMARK	
		US- 6100 855	08 2000	VINSON et al.	
		US- 6 208 309	03 2001	CHANDLER et al	
		US- 6 278 407	08 2001	ASHJAE et al	
		US- 6 326 923	12 2001	SHIGIHARA	
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Group Art Unit: 2821

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Date: March 25, 2004

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Registration No. 30,966

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